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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEFFREY THOMAS KREULEN
and WILLIAM SCOTT SPANGLER

Appeal No. 2007-0429
Application 09/848,430[1]
Technology Center 2100

Decided: March 21, 2008

Before JAMES D. THOMAS, JOHN C. MARTIN, and JAY P. LUCAS, *Administrative Patent Judges.*

MARTIN, *Administrative Patent Judge.*

DECISION ON REQUEST FOR REHEARING

Pursuant to 37 C.F.R § 41.52, Appellants have requested rehearing of our June 8, 2007, Decision on Appeal ("Decision"), wherein we reversed the

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[1] Filed May 4, 2001.

Examiner's rejections and entered a new ground of rejection against claims 1, 5, 9, 13, 15, 18, and 20-22 under 35 U.S.C. § 102(e) for anticipation by Call.

Claim 1 reads:

> 1. A method of converting a document corpus containing an ordered plurality of documents into a compact representation in memory of occurrence data, said method comprising:
>
> developing a first vector for said entire corpus, said first vector being a listing of integers corresponding to terms in said documents such that each said document in said document corpus is sequentially represented in said listing.

Br. 19. After (1) citing Call's disclosure (at para. 139) of applying his encoding technique to an e-book player, (2) taking Official Notice that some of the books in Call's e-book library necessarily will contain plural chapters, and (3) noting that "document" is defined in relevant part as "(1) A named, structural unit of text that can be stored, retrieved, and exchanged among systems and users as a separate unit" in the *IBM Dictionary of Computing* (Decision at 9-11), we held that

> [d]efinition (1) is broad enough, in our view, to read on a chapter of an e-book that contains plural chapters, with the result that such an e-book constitutes a "document corpus containing an ordered plurality of documents" in the sense of claims 1, 5, 9, 13, and 15. The result of applying Call's conversion method to such an e-book is to generate a first vector in the form of a first uninterrupted listing of integers corresponding to terms in the documents (i.e., chapters) such that each said document in the document corpus (i.e., e-book) is sequentially represented in the first vector, thereby satisfying each of the independent claims.

Decision 11.

In other words, the terms "vector" and "listing," which are not defined in Appellants' Specification, appear to be broad enough to read on the plurality of

integer files that will be stored in memory as a result of applying Call's encoding method in succession to each of the chapters (the claimed "documents") of an e-book (i.e., the claimed "document corpus") that has plural chapters.[2]

Appellants make several arguments against the rejection. One argument is that

> even if the e-books in Call were to be each stored as a plurality of chapters, each chapter being stored as a document, there is still no suggestion in Call of providing a second uninterrupted vector representing the location of each document (i.e., chapter) in the first vector, as recited in dependent claims 19, 21, 23, and 25.

Request 3. We agree that Call fails to disclose such a second vector and in fact gave that as the reason for not entering the new ground of rejection against the claims that recite that feature, i.e., dependent claims 19, 21, 23, and 25. Decision 11.[3]

Another argument is that "there is no suggestion in Call to extend the concept of storing integers within the documents to the entirely different concept of storing the contents of the *entire database* as a single uninterrupted vector." Request 5 (emphasis added). This argument is unconvincing because the rejected claims do not require that the stored integers represent an entire database.

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[2] On the other hand, if Call's compression technique were to be applied to the e-book as a whole rather than to one chapter at a time so as to generate a single integer file, that file would represent a single document (i.e., the e-book) rather than a document corpus consisting of a plurality of documents.

[3] Thus, dependent claim 21 was erroneously included in the claims listed in the statement of the new ground of rejection (Decision 9, 12). It therefore should have been apparent that instead of claim 21 the rejection should have listed claim 24, which recites the same "dictionary" limitations that are recited in rejected dependent claims 18, 20, and 22.

Finally, Appellants argue that

> there is no suggestion in this description [in Call] that the Board can reasonably make the leap in logic that the e-book is, therefore, stored as a collection of documents in the format of a *single integer file*. Rather, Appellants submit that this description of Call would imply only that, at most, each chapter (i.e., each document) would be stored as a vector in integer format.
>
> Absent additional motivation, there would be no reason to extend this concept to the e-book structure itself, even if each chapter were to be considered as a document. That is, as explained previously, assuming that each e-book were to be considered to be a collection of chapters each represented as a document, such structure inherently implies a file hierarchical structure, not an uninterrupted vector of words.

Request 4 (our italics). We agree that the result of applying Call's encoding method in succession to each of the chapters (the claimed "documents") of a multichapter e-book (i.e., the claimed "document corpus") is not a "single integer file." However, the terms "first vector" (claim 1), "listing" (claim 1) and "first uninterrupted listing" (claims 5, 9, 13, and 15) are not defined in the Specification as limited to single integer files, and Appellant has not demonstrated that those terms nevertheless would have been understood to be so limited, such as by citing relevant dictionary definitions to that effect.

Furthermore, even assuming for the sake of argument that the claim terms "first vector," "listing," and "first uninterrupted listing" must be construed as limited to a single integer file, claims 5, 9, 13, and 14 are broad enough to read on any one of the files resulting from applying Call's encoding technique to the chapters of an e-book. Claim 5 reads:

> 5. (Previously presented) A method of converting, organizing, and representing in a computer memory a document corpus containing an ordered plurality of documents, said method comprising:
>
> for said document corpus, taking in sequence each said ordered document and developing a first uninterrupted listing of integers to correspond to an occurrence of terms in the document corpus.

Br. 20. This claim does not expressly or implicitly require that the first uninterrupted listing contain integers from more than one document in the document corpus, such as by specifying that first uninterrupted listing represents the *entire* document corpus, as does claim 1, which recites "developing a first vector for said entire document corpus . . . ." Claim 5 is therefore broad enough to read on developing a first uninterrupted listing of integers representing only Chapter 1 (a recited "document"), which listing of integers will "correspond to an occurrence of terms in the e-book (i.e., document corpus"), albeit only the terms that appear in Chapter 1. The integers representing the terms that appear in the other chapters of the e-book will be represented by respective second, third, etc., uninterrupted listings.

Claims 9, 13, and 14 are as broad as claim 5 in the above respect

For the foregoing reasons, we are adhering to the new ground of rejection for anticipation by Call with respect to independent claims 1, 5, 9, 13, 15, 18, 20, 22, and 24.

Accordingly, the request for rehearing is denied.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. 1.136(a). *See* 37 C.F.R. §§ 41.50(f) and 41.52(b).

DENIED

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